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The present invention relates to a procedure
process data transfer as defined in the pre-
claim 1.

A telephone exchange system comprises several separate processes that communicate between themselves. Data transfer between processes is often tied to a given point of time or a given event. Such an interprocess data transfer event is called a service.

The services are of a very fixed nature, i.e. they comprise little dynamics. In the present context, the content of the service is of no consequence. A service request remains valid until a certain termination criterion is met; such a criterion may be e.g. a time limit, a number of events or a given event.

However, the management of such services is very difficult. Predetermined termination criteria keep system resources occupied to no purpose because the required duration of service may vary. The need for a service may disappear before the service is terminated, which constitutes an unnecessary load on the service provider providing an unnecessary service. If the service is terminated too soon, then the service parameters must be sent again.

The object of the present invention is to eliminate the drawbacks described above. A specific object of the present invention is to present a new procedure for the management of services.

As for the features characteristic of the present invention, reference is made to the claims.

Using the procedure of the invention, a first process requesting a service need not give a new service request to a second process if the service has been used before. A service that has been activated earlier can be continued by only refreshing it. Refreshment differs from normal service initiation in that the first process does not send any service pa-

rameters to the second process, but the second process executes the service in accordance with parameters received earlier.

Using the procedure of the invention, refreshment of a service is effected even if the service is not being used. When requesting a service, the first process requesting the service informs the second process providing the service that the service request concerns a service to be refreshed. In this case, the second process saves the service parameters. When receiving a mere refresh message, the second process will be able to offer the correct service to the first process.

Using the procedure of the invention, refreshment of a service is effected when the service is being used. If it has been defined that the service is to be terminated after a certain number of times of service but the service must still be continued beyond this, the service is refreshed before the specified number of times of service is reached. This makes it possible to avoid restarting the service and sending the service parameters over and over again.

Using the procedure of the invention, refreshment of a service can also be effected at suitable intervals. The refresh intervals need not be tied to any given occurrence or to an exact instant of time, but a time is calculated for the process which allows the most effective refreshment of the service. With suitable refresh intervals, the service remains well under control and it is not necessary to send a separate request each time the service is needed.

The procedure of the invention also allows easier operation in failure or overload situations. The service can be removed and then reintroduced by simply refreshing it. When this is done, the service will be started as defined in the first service request.

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Let the first process be A and the second process B. A data transfer event between the processes begins when process A requests a service from process B. Process A transmits all the parameters needed in the service to B. This action is represented by arrow 1 in Fig. 1. In accordance with this service request and the parameters received with it, process B starts serving process A, which is represented by arrow 2. When process A finds that the termination criterion for the service is approaching fulfilment, it refreshes the service request to process B, arrow 3. Process B carries on the service to process A in accordance with the original parameters received at the initiation 1 of the service. Process B terminates the service when the predetermined termination criterion has been fulfilled, arrow B. The termination criterion may be e.g. a time limit, a number of events, or a given event, or it may also be a termination request sent by A.

35 The invention can also be applied e.g. in the
case of fixed or permanent services so that the serv-
ice can be refreshed any time, even when it is not be-

ing used. In this case, the data transfer event begins in the same way as in the previous example with process A requesting a service from process B. Process A now informs process B, besides requesting a service, that the service in question is a service to be refreshed. Process B saves the service parameters. The service can now be terminated when the predetermined termination criterion has been fulfilled. The service termination criterion may be e.g. time, number of services or any one of the parameters of the application to be executed. Next time when process A needs the service from process B, it will only refresh the original service request, and process B will start the service in accordance with the parameters saved when the service was started the first time.

The invention is not restricted to the examples of its embodiments described above, but many variations are possible within the scope of the inventive idea defined by the claims.

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